

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below. Please cancel claim 1 without prejudice.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (cancelled)

Claim 2 (currently amended): A method of fabricating a field effect transistor in which at least one vertically aligned semiconductor column of a diameter in the nanometer range is present between a source electrode and a drain electrode and is annularly surrounded by a gate electrode with an insulating space between them,

the method comprising:

- free-standing semiconductor columns are grown vertically on a conductive substrate;
- a first insulating layer is deposited on the semiconductor columns;
- a first conductive metal layer and a second insulating layer are deposited thereon;
- the developing laminate is etched planar to the point of the portion of the first conductive metal layer covering the semiconductor columns is removed again;
- the end of the first conductive metal layer penetrating to the surface of the laminate are etched back in a metal-specific manner and a third insulating layer is deposited on the laminate with subsequent renewed planar etching;

or

- the ends of the first conductive metal layer penetrating to the surface of the laminate are converted to an insulator by oxidizing or nitriding; and
- finally depositing a second conductive metal layer on the laminate.

Claim 3 (previously presented): The method of claim 2,
wherein the laminate or individual layers are divided into individual arrays by a lithographic process.

Claim 4 (previously presented): The method of claim 2,
wherein the growing of the semiconductor columns is carried out electro-chemically.

Claim 5 (previously presented): The method of claim 2,
wherein the growing of the semiconductor columns is carried out by sputtering.

Claim 6 (previously presented): The method of claim 2,
wherein the growing of the semiconductor columns is carried out by a CVD process.

Claim 7 (previously presented): The method of claim 2,
wherein the growing of the semiconductor columns is carried out by vaporization.

Claim 8 (previously presented): The method of claim 2,
wherein the growing of the semiconductor columns is carried out in ion trace channels of a
polymeric film which is subsequently removed.